

### ABSTRACT

The time between heartbeats is measured over a series of such heartbeats. The time interval between two successive events is calculated and stored as a first array. The time difference between adjacent heartbeat intervals is also calculated from the first array and recorded as a differential array. The differential array is subjected to frequency analysis. First the differential array data is linearly interpolated to increase the number of data samples. The interpolated data is then subjected to a fast fourier transform (FFT) yielding a power spectrum. Characteristic frequency ranges are then integrated and the resulting frequency domain spectrum(s) are analyzed for dominant frequency characteristics.